

Amendments to the Claims

The following Listing of Claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims

Claims 1-17 (canceled).

Claim 18 (Currently amended): An apparatus for substantially closing a vascular opening in a vessel while permitting post operative blood flow through the vessel, which comprises:

a housing including a sleeve and having proximal and distal ends, and defining a longitudinal axis;

an elongated shaft at least partially disposed in the housing;

tissue engaging members disposed adjacent the distal end of the housing, the tissue engaging members being longitudinally and reciprocally movable relative to the housing between a retracted position and an advanced position in which the tissue engaging members are at least partially exposed from the housing, the tissue engaging members being adapted to cooperate to engage vascular tissue adjacent the vascular opening, the tissue engaging members each having a distal segment arranged in a general hook or J-shaped configuration, the distal segments being disposed in general diametrical opposed relation and generally curving away from the longitudinal axis when the tissue engaging members are in the advanced position;

jaw members connected to the ~~housing~~ sleeve and positioned adjacent the tissue engaging members and being movable independently thereof, the jaw members adapted to longitudinally move from a first longitudinal position corresponding to a closed position to a second longitudinal position corresponding to an open position upon longitudinal movement of the

sleeve relative to the elongated shaft, the jaw members adapted for seizure of the vascular tissue when in ~~[[an]]~~ the open position ~~of the jaw members~~, drawing together the vascular tissue during closing of the jaw members, and rendering the vascular tissue in adjacent relation when in ~~[[a]]~~ the closed position of the jaw members, wherein at least one of the jaw members includes an ~~attachment-member~~ a tissue contacting surface;

an energy source connected to the ~~attachment-member~~ tissue contacting surface to facilitate transmission of energy to the vascular tissue surrounding the vascular opening via the ~~attachment-member~~ tissue contacting surface to thereby thermally fuse the vascular opening, wherein the ~~attachment-member~~ tissue contacting surface is formed from a conductive material such that the ~~attachment-member~~ tissue contacting surface is adapted to transmit energy received from the energy source to the vascular tissue surrounding the vascular opening to thereby thermally fuse the vascular tissue surrounding the vascular opening; and

a deployment member connected to the tissue engaging members such that the tissue engaging members are longitudinally movable relative to the housing and between the jaw members, the tissue engaging members being movable in a distal direction to facilitate engagement with the vascular tissue adjacent the vascular opening to orient the vascular tissue in a predetermined orientation, and thereafter, being movable in a proximal direction to draw the vascular tissue between the jaw members to facilitate seizure by the jaw members.

Claims 19-28 (canceled).

Claim 29 (Currently amended): An apparatus for substantially closing a vascular opening in a vessel while permitting post operative blood flow through said vessel, which comprises:

a housing having proximal and distal ends, and defining a longitudinal axis;

an elongated shaft at least partially positioned within the housing, the elongated shaft defining a longitudinal axis and including a proximal end, a distal end, and a lumen extending between the proximal and distal ends, the lumen being configured and dimensioned to receive a prepositioned guidewire such that the apparatus is movable along the guidewire, the elongated shaft further including recesses ~~formed adjacent~~ disposed in spaced relation to the distal end;

tissue engaging members disposed adjacent the distal end of the housing, the tissue engaging members being adapted for longitudinal movement relative to the elongated shaft ~~movable~~ to selectively engage vascular tissue positioned adjacent the vascular opening such that the vascular tissue is oriented in a predetermined orientation; and

jaw members connected to the housing and positioned adjacent the tissue engaging members, the jaw members being movable between an open position and a closed position independently of movement of the tissue engaging members, wherein, in the open position, the jaw members are configured and dimensioned to seize said vascular tissue when in the predetermined orientation, the jaw members drawing together the vascular tissue during movement from the open position to the closed position, and rendering the vascular tissue in adjacent relation when in the closed position, the jaw members including ~~attachment members~~ depending tissue contacting surfaces the free ends of which depend radially inwardly therefrom towards the longitudinal axis, the ~~attachment members~~ tissue contacting surfaces being configured and dimensioned to ~~adjoin~~ engage the tissue adjacent the vascular opening, the ~~attachment members~~ tissue contacting surfaces being further configured and dimensioned for receipt by the recesses ~~formed adjacent~~ disposed in spaced relation to the distal end of the elongated shaft.

Claim 30 (Previously presented): The apparatus of claim 29, wherein the tissue engaging members are selectively deployable from the housing such that the tissue engaging members are positioned beyond the distal end of the housing.

Claim 31 (Previously presented): The apparatus of claim 30, wherein each of the tissue engaging members is composed, in whole or in part, of a shape memory material such that the distal segments of each of the tissue engaging members is adapted to assume a normal unstressed condition upon deployment.

Claim 32 (Previously presented): The apparatus of claim 30, wherein the tissue engaging members are longitudinally movable relative to the housing between a retracted position and an advanced position.

Claim 33 (Previously presented): The apparatus of claim 32, wherein the tissue engaging members each include a distal segment arranged in a general hook or J-shaped configuration.

Claim 34 (Previously presented): The apparatus of claim 33, wherein the distal segments of the tissue engaging members are disposed in general diametrical opposed relation, and generally curve away from the longitudinal axis when the tissue engaging members are in the advanced position.

Claim 35 (canceled).

Claim 36 (New): The apparatus of claim 18, wherein the housing further includes a flange fixedly mounted to the proximal end of the sleeve, the flange actuatable to move the sleeve longitudinally.

Claim 36 (New): The apparatus of claim 18, wherein the sleeve and the jaw members are adapted for longitudinal movement relative to the elongated shaft.

Claim 37 (New) The apparatus of claim 36, wherein the tissue engaging members are adapted for longitudinal movement relative to the elongated shaft between the first longitudinal position and the second longitudinal position.

Claim 38 (New): The apparatus of claim 18, wherein the tissue contacting surface is planar.

Claim 39 (New): The apparatus of claim 29, wherein the tissue contacting surfaces are planar.

Claim 40 (New): The apparatus of claim 29, wherein the jaw members are adapted to longitudinally move from a first longitudinal position corresponding to the closed position to a second longitudinal position corresponding to the open position.

Claim 41 (New): An apparatus for substantially closing a vascular opening in a vessel while permitting post operative blood flow through the vessel, which comprises:

a housing having proximal and distal ends, and defining a longitudinal axis;

an elongated shaft at least partially disposed in the housing, the elongated shaft further including a recess formed adjacent the distal end;

tissue engaging members disposed adjacent the distal end of the housing, the tissue engaging members being longitudinally and reciprocally movable relative to the housing between a retracted position and an advanced position in which the tissue engaging members are at least partially exposed from the housing, the tissue engaging members being adapted to cooperate to engage vascular tissue adjacent the vascular opening, the tissue engaging members each having a distal segment arranged in a general hook or J-shaped configuration, the distal segments being disposed in general diametrical opposed relation and generally curving away from the longitudinal axis when the tissue engaging members are in the advanced position;

jaw members connected to the housing and positioned adjacent the tissue engaging members and being movable independently thereof, the jaw members adapted for seizure of the vascular tissue when in an open position of the jaw members, drawing together the vascular tissue during closing of the jaw members, and rendering the vascular tissue in adjacent relation when in a closed position of the jaw members, wherein at least one of the jaw members includes a tissue contacting surface, the tissue contacting surface being further configured and dimensioned for receipt by the recess formed adjacent the distal end of the elongated shaft;

an energy source connected to the tissue contacting surface to facilitate transmission of energy to the vascular tissue surrounding the vascular opening via the tissue contacting surface to thereby thermally fuse the vascular opening, wherein the tissue contacting surface is formed

from a conductive material such that the tissue contacting surface is adapted to transmit energy received from the energy source to the vascular tissue surrounding the vascular opening to thereby thermally fuse the vascular tissue surrounding the vascular opening; and

a deployment member connected to the tissue engaging members such that the tissue engaging members are longitudinally movable relative to the housing and between the jaw members, the tissue engaging members being movable in a distal direction to facilitate engagement with the vascular tissue adjacent the vascular opening to orient the vascular tissue in a predetermined orientation, and thereafter, being movable in a proximal direction to draw the vascular tissue between the jaw members to facilitate seizure by the jaw members.